

WHAT IS CLAIMED IS:

1. A duct fan adapted to be arranged in a duct, comprising a motor, an impeller adapted to be driven by the motor, and a distributor having a plurality of vanes which are adapted to contact the duct and form a connection between the duct and the motor.
2. The duct fan as claimed in claim 1, wherein the motor is arranged within the distributor and comprises an electric motor.
3. The duct fan as claimed in claim 2, wherein the duct fan comprises a configuration to be arranged coaxially in the duct.
4. The duct fan as claimed in claim 2, wherein the vanes are distributed at equidistant spacings from one another around a circumference of the distributor.
5. The duct fan as claimed in claim 1, wherein at least one vane is designed as a cooling device.
6. The duct fan as claimed in claim 1, wherein at least one vane comprises an air-supply or air-discharge duct for separate air cooling from outside the tube.
7. The duct fan as claimed in claim 6, which further comprises a cooling impeller for separate air cooling with air drawn through said air-supply duct, the cooling impeller being driven by the motor.
8. The duct fan as claimed in claim 2, wherein the power supply for the electric motor is provided through at least one of the vanes.

9. The duct fan as claimed in claim 8, wherein at least one of the vanes has one or more through-openings or longitudinal grooves designed as a cable duct.

10. The duct fan as claimed in claim 8, wherein at least one externally insulated, electrically conductive element forms the core of at least one vane forming the power supply for the electric motor.

11. The duct fan as claimed in claim 10, wherein the electrically conductive element comprises a bent sheet-metal part.

12. The duct fan as claimed in claim 8, further comprising an electrical contact-connection at the radially outer end of one vane.

13. The duct fan as claimed in claim 8, which further comprises at least one control element and respective spatially separate infeeds for the power supply of the electric motor and the power supply for the at least one control element.

14. The duct fan as claimed in claim 13, wherein the at least one control element is electronic and is arranged in the distributor.

15. The duct fan as claimed in claim 2, wherein the distributor forms a housing of the motor.

16. The duct fan as claimed in claim 1, wherein at least two vanes comprise attachment points at their outer ends.

17. The duct fan as claimed in claim 16, wherein the attachment points comprise bores with internal threads.

18. The duct fan as claimed in claim 16, further comprising an electrical connector as an additional attachment point for the distributor.

19. The duct fan as claimed in claim 16, wherein the attachment points for the distributor to the duct further comprise a noise-isolating element.
20. The duct fan as claimed in claim 19, wherein the noise-isolating elements are comprised of an elastomeric material.